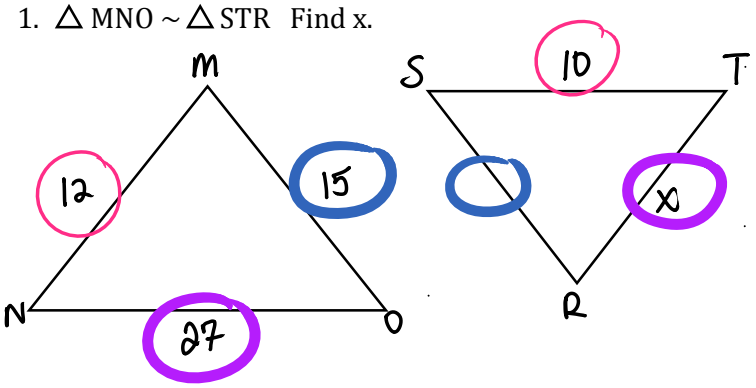
Geometry G – Notes

SECTION 7.1 PART II – SIMILAR TRIANGLES

1. △ MNO ~ △ STR Find x.

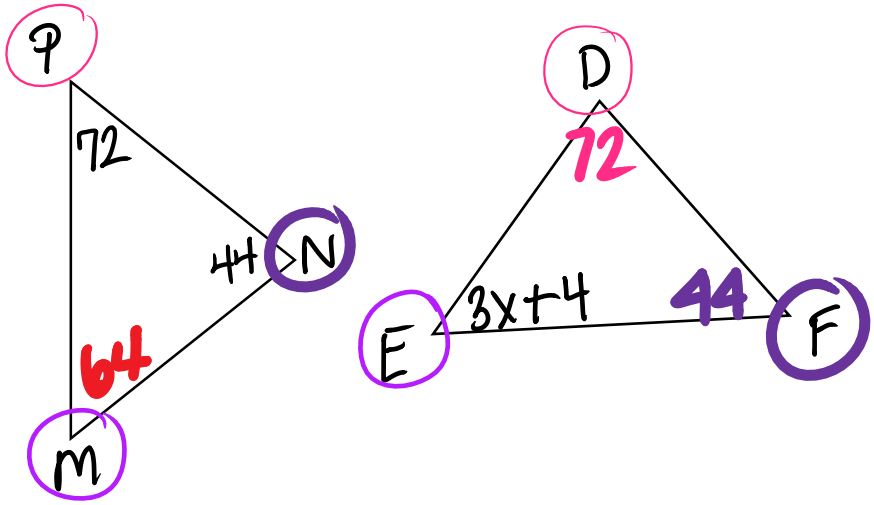


$\frac{12}{10} = \frac{27}{x}$

$\frac{12x}{12} = \frac{270}{12}$

$x = 22.5$

2. If △ PMN ~ △ DEF, find the value of x.

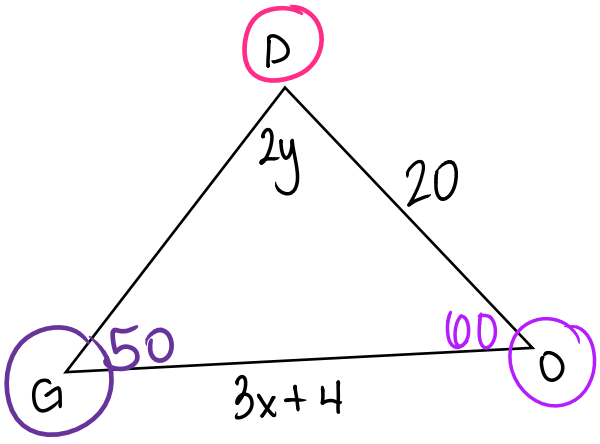


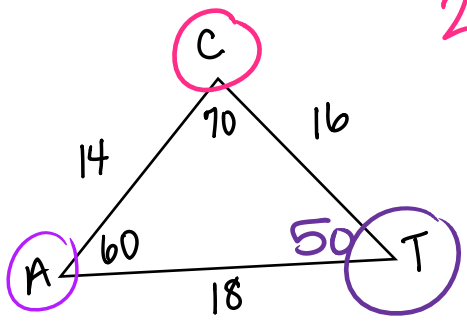
$64 = 3x + 4$

$60 = 3x$

$x = 20$

3. If △DOG ~ △ CAT find the value of x and y.





$2y = 70$

$y = 35$

$\frac{20}{16} = \frac{3x+4}{18}$

$360 = 16(3x+4)$

$360 = 48x + 64$

$\frac{296}{48} = \frac{48x}{48}$

$x = 6.2$